CLAIMS:

1. In a method of delivering an analgesic drug selected from the group consisting of fentanyl salts and sufentanil salts through a body surface by electrotransport from an electrotransport delivery device having a donor reservoir containing an at least partially aqueous solution of a fentanyl salt or a sufentanil salt, the improvement comprising maintaining the concentration of the salt in solution above a level at which the electrotransport flux of the drug is dependent on the concentration of the drug salt in the solution, substantially throughout the analgesic drug electrotransport delivery period.

2. The method of claim 1, wherein the drug is a fentanyl salt ~~and the concentration of the fentanyl salt in the solution is maintained above about 11 mM~~.

3. The method of claim 1, wherein the drug is a fentanyl salt and the concentration of the fentanyl salt in the solution is maintained above ~~about 16 mM~~.

4. The method of claim 1, wherein the donor reservoir comprises a hydrogel containing an aqueous fentanyl salt solution, the solution having a fentanyl concentration above about ~~5~~ 1 mg/mL of water in the hydrogel.

5. The method of claim 1, wherein the drug is a sufentanil salt ~~and the concentration of the sufentanil salt in the solution is maintained above about 1.7 mM~~.

6. The method of claim 1, wherein the donor reservoir comprises a hydrogel containing an aqueous sufentanil salt solution, the solution having a sufentanil concentration above about 1 mg/mL of water in the hydrogel.

7. The method of claim 1, wherein the body surface is intact skin.

8. The method of claim 1, wherein the body surface is intact human skin.

9. The method of claim 1, wherein the electrotransport flux of the analgesic drug is substantially proportional to a level of electrotransport current applied by the delivery device during the electrotransport drug delivery.

10. In an electrotransport device for delivering an analgesic drug selected from the group consisting of fentanyl salts and sufentanil salts through a body surface by electrotransport, the device having a donor reservoir containing an at least partially aqueous solution of a fentanyl salt or a sufentanil salt, the improvement comprising the reservoir containing a loading of the analgesic drug salt which is sufficient to maintain the concentration of the drug salt in solution above a level at which the electrotransport flux of the drug is dependent on the concentration of the drug salt in the solution, substantially throughout the analgesic drug electrotransport delivery period.

11. The device of claim 10, wherein the drug is a fentanyl salt ~~and the reservoir contains a loading of fentanyl salt which is sufficient to maintain the concentration of the fentanyl salt in the solution above about 11 mM.~~

12. The device of claim 10, wherein the drug is a fentanyl salt and the reservoir contains a loading of fentanyl salt which ~~is sufficient to~~ maintains the concentration of the fentanyl salt in the solution above about 16 mM.

13. The device of claim 10, wherein the donor reservoir comprises a hydrogel containing an aqueous fentanyl salt solution, the solution having a fentanyl concentration above about 5 mg/mL of water in the hydrogel.

14. The device of claim 10, wherein the drug is a sufentanil salt, and the ~~reservoir contains a loading of sufentanil salt which is sufficient to maintain the concentration of the sufentanil salt in the solution above about 1.7 mM.~~

15. The device of claim 10, wherein the donor reservoir comprises a hydrogel containing an aqueous sufentanil salt solution, the solution having a sufentanil concentration above about 1 mg/mL of water in the hydrogel.

16. The device of claim 10, wherein the device ~~is adapted to be applied~~ has an adhesive for attachment to intact skin.

17. The device of claim 10, wherein the device ~~is adapted to be applied~~ has an adhesive for attachment to intact human skin.

18. The device of claim 10, wherein the electrotransport flux of the analgesic drug is substantially proportional to a level of electrotransport current applied by the delivery device during the electrotransport drug delivery.